1.0 Purpose and Need for Action

1.1 INTRODUCTION

In October 2000, an interdisciplinary team completed the Upper Williams River Watershed Assessment (USDA 2000). Management recommendations identified as a result of the watershed assessment process were developed with an understanding of the interactions between land-use activities and the physical and biological environments within the Upper Williams River watershed.

Using the watershed assessment as a guide, an interdisciplinary team developed a site-specific project designed to move the Upper Williams River watershed toward desired conditions identified in the Monongahela National Forest Land and Resource Management Plan (Forest Plan).

This Chapter 1) describes the site-specific proposal, referred to as the "proposed action", 2) explains why the proposed action is needed, 3) defines the scope of the analysis, and 4) lists the decisions to be made with this project.

1.2 PROJECT AREA DESCRIPTION

The Upper Williams River watershed forms the project area boundary and includes an estimated 16,300 acres of National Forest System lands and an estimated 8,338 acres of privately owned lands, totaling 24,792 acres. The project area is located approximately 10 miles west of Marlinton, West Virginia in Pocahontas County (see Map 1-1, page 1-2).

The Highland Scenic Highway and the ridge tops of Red Lick Mountain, Tea Creek Mountain, and Black Mountain border the north and west boundaries of the project area. The ridge tops of Black Mountain, Swago Mountain, and Day Mountain and the Monongahela National Forest Proclamation Boundary form the south and east boundaries. Elevations range from about 3,000′ on Williams River near the confluence with Sugar Creek to about 4,703′ on Red Spruce Knob. The Handley Public Hunting and Fishing Area managed by the West Virginia Division of Natural Resources is located within this watershed.

Eight sub-watersheds comprise the Upper Williams River Watershed covering approximately 39 square miles (24,792 acres). The sub-watersheds are Beaverdam Run/Locust Knob, Swago Mountain/Downy Run, Mountain Lick Run, Black Mountain, Big & Little Spruce Knobs/Day Run, Little Laurel Creek, Big Laurel Creek, and Sugar Creek. The Williams River is a tributary of the Gauley which then enters the New River near Gauley Bridge, WV. The New River turns into the Kanawha River and enters the Ohio River at Point Pleasant, WV.

The climate is characterized by an average precipitation of 30″ to 60″ per year. Summer temperatures average around 80°F with occasional daytime highs in the 90s and nighttime lows

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reach down into the upper 30s. Winter temperatures average around 30°F. Normally there are several days in the winter with temperatures at sub-zero levels.

Red Spruce Knob, located in the northeast corner of this watershed, is the most dominant landform at 4,703′ in elevation. Big Spruce Knob at 4673′ in elevation is the second highest peak in the watershed and is located near the center of the watershed. Both landforms are located on national forest system land. The watershed is underlain mostly by red, green, and medium gray shale, siltstone, coal, and sandstone with a few thin limestone beds. The landscape includes seeps and springs forming the numerous tributaries of the Upper Williams River. Several large grassy openings, mostly on private lands, provide visual diversity from viewpoints and overlooks along the Highland Scenic Highway.

Approximately 66% of the watershed is national forest system land, 3% state land, and 31% private lands. National forest system land covers the north, west, and south boundaries. State public land is located in the northern portion of the watershed. Private lands are mainly in the eastern portion of the watershed. A major portion of the community of Woodrow is located in the northeast section in the Big Laurel Creek sub-watershed. Along the east and west boundaries of the Handley Public Hunting and Fishing Area are numerous hunting/fishing camps with mostly seasonal occupants. Several additional seasonal camps are located along Williams River near Day Run.

1.3 FOREST PLAN DIRECTION

The National Environmental Policy Act of 1969 (NEPA) established requirements for programmatic planning, such as the Monongahela National Forest Land and Resource Management Plan (USDA 1986, Forest Plan), and site-specific planning, such as this Environmental Assessment (EA).

The Monongahela National Forest began implementation of its Forest Plan in July 1986. The Forest Plan, and accompanying Final Environmental Impact Statement, and Record of Decision specify the overall direction for managing all of the resources for the Forest, and consists of both Forest-wide and area-specific goals, standards, and guidelines that provide for land uses with anticipated resource outputs.

This EA documents the site-specific analysis of implementing the Forest Plan in the Upper Williams River project area.

1.3.1 Management Prescription Direction

Under the Monongahela Forest Plan, the Forest is divided into planning areas, referred to as Opportunity Areas (OAs). Management prescriptions (MPs) are assigned to lands within each OA. Each management prescription has its own purpose, area description, desired future condition, and set of standards and guidelines for management.

The Upper Williams River project included all or portions of five OAs. The management prescriptions assigned to these OAs include an estimated 15,000 acres of MP 3.0 and an estimated 1,300 acres of MP 6.1 (see Map 1-2, page 1-5).

The purpose of MP 3.0 is to emphasize; 1) large, high quality hardwood trees for lumber and veneer, hard mast production and scenic attributes; 2) a variety of Forest views; 3) wildlife species tolerant of disturbances, such as deer, grouse, and squirrel; and 4) a primarily motorized recreation environment (Forest Plan pg. 127).

The primary purpose of MP 6.1 is to emphasize remote habitat for species intolerant of disturbance. Secondary purposes of MP 6.1 are to manage for; 1) a semi-primitive non-motorized type of recreational environment; 2) a mix of forest products; 3) a strategy for management of sites reverting from hardwood to conifer (pine and spruce) and the intermingled high site hardwood types (Forest Plan pg. 164).

1.4 PURPOSE AND NEED FOR ACTION

The purpose and need for action explains why the proposed action is needed. It was developed through an assessment of the current conditions of the project area in relation to the desired future condition described in the Monongahela Forest Plan.

The Forest Service completed a watershed analysis for the Upper Williams area in October, 2000. This analysis resulted in several recommendations based on the existing conditions in the watershed. This proposal and analysis will focus on the recommendations related to the mosaic of tree stands, insect and disease, and providing forest products to the local community.

1.4.1 Mosaic of Forested Stands

For MP 3.0, the Forest Plan describes the desired future condition of the forest as a mosaic of stands of predominantly hardwood trees (Forest Plan, p.127). It further states, "The stands will vary in size, shape, height and species…" Table 1-1 displays the disparity between the Forest Plan goals and the existing condition for stands in MP 3.0 within the Upper Williams area.

Table 1-1 Management Prescription 3.0 Stands

Size Class	**Forest Plan Goals** (% of area) (FP page 129)	**Existing Condition** (% of area)
Permanent Openings	5	3
Seedling/Sapling	10-20	2
Pole Timber	15-30	13
Saw Timber	50-75	82

For MP 6.1, the Forest Plan does not identify specific percentages but does identify the desired future condition of the forest as "a mosaic of trees stands and opening with a near optimum quantity and dispersions of the habitat elements that feature the wild turkey and black bear along with associated wildlife species. Management emphasis will focus on manipulation of the naturally occurring tree species composition to optimize hard

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mast production, age class distribution, and ensure a continuous supply of mast" (Forest Plan, p. 165).

From the 1880s through the early 1900s, extensive timber harvesting occurred across the state. Construction of railroads doubled in the 1880s and then doubled again in the 1890s, allowing access to and transportation of the timber resource (Lewis, 1998). As a result, much of what is now the Monongahela National Forest had been clearcut by the late 1920s, including the Upper Williams River area. For this reason, much of the Upper Williams River watershed consists of closed-canopy even-aged forest, with over 76% of the forested stands overall between 60 and 100 years old. Many of the older trees are competing for nutrients resulting in slower growth and susceptibility to insects and disease.

There is a need to:

- Increase the percentages of younger age classes in the planning area.
- Reduce competition to the larger, older trees

1.4.2 Insect and disease

Field surveys have revealed the presence of the advancing front of beech bark disease. This disease results when the bark is attacked by the non-native beech scale insect. Subsequent invasion of the bark by a fungus produces severe injury or mortality. Typically, mortality occurs on an estimated 30% of infected trees within a stand and severe injuries occur on up to 60% of the remaining trees (Leak and Smith 1996), decreasing the health of the stands.

Many of the affected stands have been previously thinned, and in some cases, beech is the predominant species in the residual stand. Once beech die of the disease, the trees re-sprout, forming dense thickets. The dense regeneration of beech within the infested stands prevents the regeneration of other hardwood or conifer trees. As a result, the productivity of the stands will decline as the disease progresses, decreasing stand health.

Forestwide standards/guidelines states that "[m]anagement techniques and practices should be stressed which prevent unacceptable Forest pest damage from developing."

There is a need to:

- Improve the health of the stands infected with beech bark disease using non-commercial treatment to decrease infection, reduce beech sprouting, and to encourage growth of other hardwood and conifer trees.

An opportunity exists within the Upper Williams project area to plant disease resistant chestnut. Chestnut blight is a fungus that was likely introduced through the importation of chestnut trees from Asia and was first reported in the United States in 1904. Within 50 years, the fungus occupied the entire range and had killed 80% of the American chestnut (Kuhlman 1978), leaving nearly all the remaining live trees infected with the fungus and dying. Prior to the infestation,

the American chestnut was a major component of the eastern hardwood forest, comprising 25% of all tree species on over 200 million acres from New England to Georgia (MacDonald, Cech, Luchok, and Smith 1978; and Schlarbaum 1989). This tree, which once grew up to 120′ tall and over 7′ in diameter, now rarely attains heights over 30′ with diameters up to 6″ before the fungus kills the stem and the process starts over when the tree re-sprouts. A few resistant trees have been found. There is hope that some time in the future, the American chestnut will return as a valuable timber and wildlife tree to the eastern hardwood forest (Newhouse 1990).

There is an opportunity to:

- Plant American chestnut as a species component within stands across the watershed.

1.4.3 Provide Forest Products to the Local Communities

Goal VI of the Monongahela Forest Plan is to "Manage the vegetation on the Forest…in order to provide a sustained yield of timber, benefit other resources, and support the local economy with concern for environmental protection and cost efficiency". In addition, Goal VII is to "Provide a stable supply of Forest products to dependent wood using industry". Local and regional industry has a steady demand for wood fiber.

There is a need to:

- Respond to existing opportunities to offer a mix of commercial forest products to local and regional markets.

1.5 PROPOSED ACTION

The Monongahela National Forest is proposing activities on the Upper Williams area of the Marlinton Ranger District that include vegetation management activities and stand improvement (see map 1-3 page 1-8). More specifically, the proposed action includes:

1.5.1 Mosaic of tree stands

The proposed action includes an estimated 2,255 acres of timber harvest totaling 10.5 million board feet (MMBF) or 17,510 hundred cubic feet (ccf). The proposed timber harvesting would include an estimated 1,429 acres of commercial thinning, 79 acres of thinning with patch cuts, 413 acres of two-age harvesting, 252 acres of clearcuts, and 82 acres of overstory removal. The proposed timber harvesting would be accomplished by helicopter logging 1,953 acres and conventional logging (ground-based skidding) 302 acres. It is anticipated that this would occur in about 3-5 sales over a period approximately 3-5 years.

Pre-harvest and post-harvest activities would include about 665 acres of site preparation, 101 acres of planting, 115 acres of prescribed fire, 106 acres of vine control, and 419 acres of herbicide use.

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1.5.2 Insect and Disease Management

The proposed action includes vegetation management on an estimated 302 acres which would be treated to improve the health of stands infected with beech bark disease. This would entail cutting and/or treating infected beech trees with herbicides to promote the regeneration of other species of hardwood and conifer trees.

1.5.3 Transportation System Management

Road reconstruction is proposed to provide access to areas proposed for harvesting. Following harvesting activities some roads will be decommissioned or placed into storage. No new road construction is proposed.

An estimated 10.5 miles is proposed for reconstruction. This would include such things as minor road relocation, widening, changing the road grade, and adding drainage structures as needed. Approximately 20.6 miles of road would be placed into storage, and 18.2 miles of road would be decommissioned.

1.6 SCOPE OF THE ENVIRONMENTAL ANALYSIS

National forest planning takes place at several levels: national, regional, forest, and project levels. The Upper Williams EA is a project-level analysis; its scope is confined to addressing the significant issues and possible environmental consequences of the project. It does not attempt to address decisions made at those higher levels. It does, however, implement direction provided at those higher levels.

The Forest Plan embodies the provisions of the National Forest Management Act, its implementing regulations, and other guiding documents. The Forest Plan sets forth in detail the direction for managing the land and resources of the Monongahela National Forest. Where appropriate, the Upper Williams EA tiers to the Forest Plan FEIS, as encouraged by 40 CFR 1502.20.

The scope of the analysis addressed in this EA is limited to the issues and effects specific to the timber harvest, beech bark disease treatment, and other activities associated with the proposed action within the project area.

This EA documents and evaluates the effects caused by the proposed activities and various alternatives. These site-specific proposed actions are identified in Chapter 2.

The administrative scope of this document can be defined as the laws and regulations that provide the framework for analysis.

1.7 DECISIONS TO BE MADE

The responsible official for the decision will be the District Ranger for the Marlinton Ranger District. The responsible official will answer the following three questions based on the environmental analysis:

1. Will the proposed action proceed as proposed, as modified by an alternative, or not at all? If it proceeds:
2. What mitigation measures and monitoring requirements will the Forest Service implement?
3. Will the project require a Forest Plan amendment?

1.8 APPLICABLE LAWS AND EXECUTIVE ORDERS

Shown below is a partial list of federal laws and executive orders pertaining to project-specific planning and environmental analysis on federal lands. While most pertain to all federal lands, some of the laws are specific to West Virginia. Disclosures and findings by state laws are contained in Chapter 3 of this EA.

Multiple-Use Sustained-Yield Act
National Historic Preservation Act of 1966 (as amended)
Wild and Scenic Rivers Act of 1968, amended 1986
National Environmental Policy Act (NEPA) of 1969 (as amended)
Clean Air Act of 1955 (as amended)
Endangered Species Act (ESA) of 1973 (as amended)
Forest and Rangeland Renewable Resources Planning Act (RPA) of 1974 (as amended)
National Forest Management Act (NFMA) of 1976 (as amended)
Clean Water Act of 1977 (as amended)
American Indian Religious Freedom Act of 1978
Archeological Resource Protection Act of 1980
Cave Resource Protection Act of 1988
Migratory Bird Treaty Act of 1918
Executive Order 11593 (cultural resources)
Executive Order 11988 (floodplains)
Executive Order 11990 (wetlands)
Executive Order 12898 (environmental justice)
Executive Order 12962 (aquatic systems and recreational fisheries)